

REMARKS

This amendment and these remarks are responsive to the non-final Office action dated November 15, 2004, and are being submitted under 37 C.F.R. § 1.111. Claims 1-24 and 39 are pending in the application. In the Office action, the Examiner (1) allowed claims 1-12 and 18-24, (2) objected to claim 14 (as being dependent upon a rejected based claim), and (3) rejected claims 13, 15-17, and 39 under 35 U.S.C. § 102(b) or § 103(a) (as being anticipated by, or obvious over, U.S. Patent No. 3,488,779 to Christensen). Applicants traverse the rejections, contending that rejected claims 13, 15-17, and 39 are neither anticipated nor obvious. Nevertheless, to expedite the issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention that applicants would like to patent now, applicants have amended claims 13, 15, and 39, and have added new claims 40-53. Furthermore, applicants have presented arguments showing that claims 13-17 and 39 are neither taught nor suggested by any of the references of record. Accordingly, applicants respectfully request reconsideration of the rejected claims, and prompt issuance of a Notice of Allowability covering all of the pending claims.

I. Information Disclosure Statement

Applicants will be submitting an Information Disclosure Statement (IDS) for this application soon, and respectfully ask the Examiner to consider the IDS, and the references cited therein, in reviewing this communication.

II. Claim Rejections – 35 U.S.C. §§ 102 and 103

The Examiner rejected claims 13, 15, 16, and 39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,488,779 to Christensen, and rejected claim 17

under 35 U.S.C. § 103(a) as being obvious over Christensen. Applicants traverse these rejections. Christensen does not teach or suggest each of the elements of any of these claims. Nevertheless, to expedite the issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention that applicants would like to patent now, applicants have amended claims 13, 15, and 39. Support for these amendments are provided, for example, in the application on page 11, lines 13-16, page 34, lines 22-23, and claim 4, among others. Applicants reserve the right to pursue original claims 13, 15, and 39 at a later time in a continuation application.

A. Response to the Examiner's Statement about Functional Limitations

In rejecting claims 13, 15, 16, and 39, the Examiner characterized functional limitations in the claims as follows:

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. The term "configured to" is deemed to be analogous to "adapted to."

Applicants strongly disagree with the assertion that functional limitations do not constitute a limitation in any patentable sense. For example, the MPEP (at § 2173.05(g)) describes functional limitations as follows:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). *There is nothing inherently wrong with defining some part of an invention in functional terms.* (emphasis added)

Accordingly, applicants assert that the functional limitations in the claims are proper and should be considered in assessing the patentability of the claims.

B. Claims 13-17

Independent claim 13, as amended, is directed to a bone plate for fixation of the radius:

13. (Currently amended) A bone plate for intra-bone fixation of the radius, comprising:

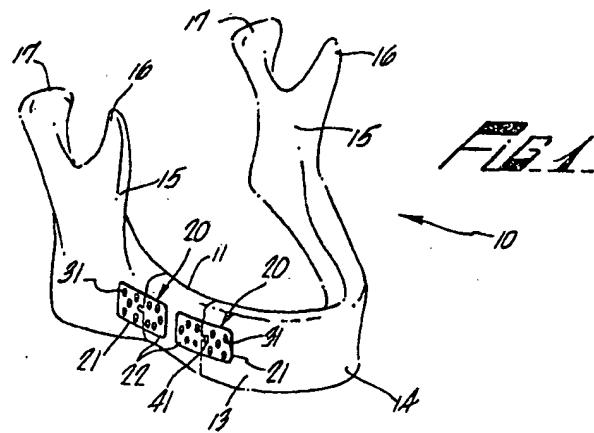
first and second plate members each defining one or more openings configured to receive fasteners for securing the first and second plate members to different portions of [[one]] a radius bone, the first and second plate members being contoured configured to fit onto distal surface regions of the [[one]] radius bone; and

a joint connecting the first and second plate members and defining an angular disposition between the first and second plate members, the joint having an adjustable configuration in which the angular disposition is adjustable and a fixed configuration in which the angular disposition is fixed.

The Examiner rejected this claim as obvious in view of Christensen, as mentioned above. Applicants disagree. Christensen does not teach or suggest "first and second plate members being contoured to fit onto distal surface regions" of a radius bone, as required, in part, by claim 13.

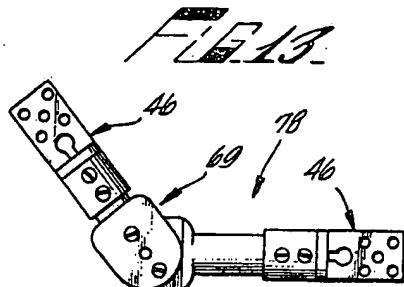
Christensen relates to a prosthetic appliance for use in anchoring bone grafts or replacing sections of bone. In particular, Christensen states "the appliance has particular utility with respect to surgery involving the human mandible or lower jawbone."

Figure 1 of Christensen shows the shape of a human mandible 10:



The human mandible is a highly curved U-shaped bone having a body with an anterior prominence 14 (defining the chin) and a pair of rami 15 extending upwardly, at an angled disposition, from the body (col. 2, line 72, to col. 3, line 4).

In the Office action, the Examiner rejected claim 13 as being anticipated by appliance 78 of Christensen, shown in Figure 13:



In particular, the Examiner stated that Christensen discloses a bone plate apparatus comprising: two bone plates 46, a joint ("hinged strut assembly") 69, and a pin 74 (not labeled in this figure) to fix the angular configuration. Plates 46 more specifically appear to be configured to fit onto different portions of the mandible, with the hinged strut assembly used both to compensate for the curvature of the mandible, and for the potentially different curvatures of different portions of the mandible. However, plates 46 are not contoured to fit onto distal surface regions of a radius bone, as required by claim 13. Claim 13 thus should be allowed.

It would not have been obvious, at the time of the invention, to contour the plates of appliance 78 to fit onto distal surface regions of a radius bone. Christensen states that appliance 78 "is useful to reproduce the curvature of the chin in a mandible from which a major part of the body portion [of the mandible] has been removed" (col. 5, lines 63-66). Christensen thus teaches use of appliance 78 to replace a nonlinear segment of bone. In particular, the hinged strut assembly can be adjusted so that this assembly matches the angulation of the removed bone segment. However, claim 13 requires plate members contoured to fit onto distal surface regions of a radius bone. The radius bone

is a substantially linear bone, as shown at 64 and 530 in Figures 4 and 19, respectively, of the application:

Fig. 4

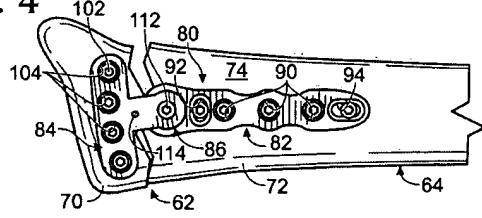
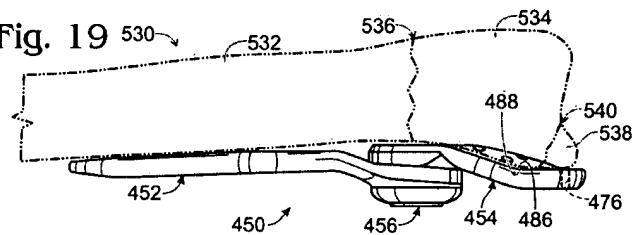


Fig. 19



Therefore, it would not have been obvious to contour plates 46 of Christensen to fit onto the radius bone, as required by claim 13, because it would not have been obvious that angular adjustment of the plates would be beneficial or even necessary for replacement of a segment of a substantially linear bone. Moreover, to the extent that plates used to fix the distal radius may be configured to match particular portions of the distal radius (as opposed to any region of a mandible), the need to allow angular adjustment of the plates to match the curvature of the bone (as opposed merely to shaping a fixed plate to match the curvature of the particular portion of bone) is reduced or eliminated.

In summary, independent claim 13, as amended, should be allowed because Christensen does not teach or suggest all of the limitations of this claim. Claims 14-17, which depend from claim 13, also should be allowed for at least the same reasons as claim 13.

C. Claim 39

Independent claim 39, as amended, is directed to a bone plate for bone fixation:

39. (Currently amended) A bone plate for bone fixation, comprising:
means for securing first and second plate members having surfaces contoured for [[to]] different portions of [[one]] a radius bone such that the contoured surfaces fit onto distal surface regions of the radius bone;

means for pivoting the first plate member relative to the second plate member so that the different portions of the [[one]] radius bone secured to the first and second plate members move relative to one another; and

means for restricting pivotal movement of the first and second plate members relative to each other so that the different portions of the [[one]] radius bone are fixed.

For at least the same reasons as those described above for claim 13, Christensen does not teach or suggest "first and second plate members having surfaces contoured for different portions of a radius bone such that the contoured surfaces fit onto distal surface regions of the radius bone," as required, in part, by claim 39. Therefore, independent claim 39 should be allowed.

III. New Claims

The current communication adds new claim 40-53. Exemplary support for the new claims is shown, without limitation, in the following table:

New Claim	Support
40 (Independent)	Claim 1
41	Claim 2
42	Claim 3
43	Claim 4
44	Claim 5
45	Claim 6
46	Claim 7
47	Claim 8
48	Claim 9
49	Claim 10
50	Claim 11
51	Claim 12
52	page 34, lines 3-6
53	page 34, lines 3-6

New claim 40 is an independent claim directed to a bone plate for bone fixation:

40. (New) A bone plate for bone fixation, comprising:

first and second plate members each defining one or more openings configured to receive fasteners that secure the first and second plate members to portions of at least one bone; and

a joint connecting the first and second plate members and defining a relative angular disposition of the first and second plate members, the joint having (1) an adjustable configuration in which the relative angular disposition is adjustable by movement of at least one of the first and second plate members about two or more nonparallel axes, and (2) a fixed configuration in which the relative angular disposition is fixed.

None of the references of record teach or suggest a bone plate in which the relative angular disposition of connected plate members is adjustable by movement of one or both plate members about two more nonparallel axes. Therefore, claim 40 should be allowed. Claims 41-53, which depend from claim 40, also should be allowed for at least the same reasons as claim 40.

IV. Response to the Examiner's Statement of Reasons for Allowability

In the Office action, the Examiner indicated that claims 1-12 and 18-24 are allowable. The Examiner also paraphrased applicants' claimed invention as follows: "the prior art of record fails to teach or suggest two bone plates that have more [than] one axis of relative movement." Applicants agree with the Examiner's conclusions regarding the patentability of the allowed claims, without necessarily agreeing with or acquiescing in the Examiner's reasoning. In particular, applicants believe that the claims are allowable because the prior art fails to teach or suggest the invention as claimed, independent of how the invention is paraphrased.

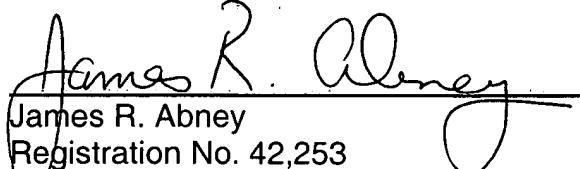
V. Conclusion

Applicants believe that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, applicants respectfully request that the Examiner issue a Notice of Allowability covering the pending claims. If the

Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

Respectfully submitted,

KOLISCH HARTWELL, P.C.



James R. Abney

Registration No. 42,253

Customer No. 23581

520 S.W. Yamhill Street, Suite 200

Portland, Oregon 97204

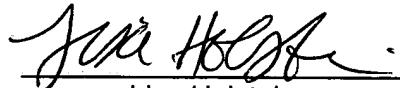
Telephone: (503) 224-6655

Facsimile: (503) 295-6679

Attorney for Assignee

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on February 15, 2005.



Lisa Holstein